

## Technical Instruction

# Handheld Ultrasonic Welder

35KHz 1200W



**Zhejiang Zhenbo Precision Machinery Co.,Ltd**

By Alex Lee

2022-06-06

# I-1. Machine Outlook

*New Design*



Model Code: MSP-GL3512 & MSP-GI3512



## BENEFIT OF MACHINE:

- Stable in performance;
- Strong in welding ability;
- Reliable in quality;
- Intelligent in operation.

*Old Design*



# I-1. Welding Gun



*Type-L (MSP-GL3512)*



*Type-I (MSP-GI3512)*



## II-1. Specification Parameters

1. Power Source: 220V, AC, 1P, 50/60Hz;
2. Air Source: 0.3MPa;
3. Frequency: 35KHz;
4. Power Output: 1200W (Peak Value1500W);
5. Generator Size: 260mm\*470mm\*124mm;
6. Weight: 7.6KG



## II-2. Machine Features

- MP Sonic ultrasonic system from Korea with more than 40 years of technology accumulation, system is reliable in stability of quality.
- Anti-frequency system applied, high loading ability, strong ultrasonic energy output.
- Operated on HMI with digital control.
- Ultrasonic output control mode: time mode & energy mode.
- Welding process control: three steps: Ultrasonic step 1 + Ultrasonic step 2 + Cooling Step.
- Amplitude adjusted from 10%~100% , by 1%, meeting different welding requirement in specification.
- Impedance analysis system for ultrasonic welding tooling, control welding tooling technical parameter and state in time, avoid system damaged caused by welding tool error.
- Blower: for fast cooling of material.
- Multiple self-protection: over-voltage, over-current, over-impedance, error frequency, over-loading, welding time limit protection, etc.
- Ultrasonic frequency intime scanning with sonic compensation, system matches welding tooling with dynamic technical output picking up its real time state.
- MP Sonic Intelligent Operation system, including:
  1. *Formula System: for storage of welding parameters;*
  2. *Welding Process Dynamic Supervision: Time Column, Loading Colum and Ultrasonic Output Dynamic Graphic Supervision;*
  3. *Welding Record System: records the welding parameter for a single parts for future checking, the record can be stored in system;*
  4. *Alarm Record System: convenience for equipment management and maintenance;*
  5. *Equipment Operation Daily Record: for future check, convenience for equipment management;*
  6. *Tri-level Authorization Management: different authorization protected by different password.*



# II-3. Features Show

The screenshots illustrate the following features:

- Home Screen:** Shows the system status (MP Sonic Auto / 0) and the title '数字超声波' (Digital Ultrasound).
- Settings Menu:** A table with columns for 'Welding setting', 'Time', and 'Amplitude'. Options include Delay, #1 Welding, #2 Welding, and Curing.
- Main Control Panel:** Displays parameters such as Frequency (0.000 KHZ), Amplitude (0.0 %), Loading rate (0 %), and Match (0.000 Ω). It includes 'Reset' and 'Test' buttons.
- Data Tables:**
  - Welding Time Table:**

Date	Time	Counting	# 1 Welding time	# 2 Welding time	#
  - Recovery Time Table:**

Date	Time	Content	Recovery date	Recovery time
  - Records Table:**

Line number	Serial number	Date	Time	User	Records
1	6	17/12/21	16:01:27		Log
2	5	17/12/21	16:00:49		Welding record
3	4	17/12/21	16:00:46		Fault record
4	3	17/12/21	16:00:15		Welding setting
5	2	17/12/21	16:00:10		□□□□
6	1	17/12/21	15:59:46		□□□□
- Parameter Table:**

Parameter	Value
Frequency	0.000
Amplitude	0.0
Delay Time	0.000 S
Welding	#1      #2
Welding time	0.000 S    0.000 S
Energy	0.0 J      0.0 J
CuringTime	0.000 S
Count	0    PC
Welding Cycle	0.0 S

MP Sonic

Intelligent Ultrasonic Operation System



## III-1. Machine Content



Generator



Welding Gun



Solenoid Valve



Electric Cable

# Thanks

---

Tel :+86-577-61517751

Fax :+86-577-61517750

Mob:+86 15918523336

Email :[info@mp-sonic.com](mailto:info@mp-sonic.com);

Add :No.289, Weiqi Road, Yueqing Economic  
Development Zone, Wenzhou, China

Web:[www.mp-sonic.cn](http://www.mp-sonic.cn); [www.mp-sonic.com](http://www.mp-sonic.com);